AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method of identifying a candidate PTEN/IGF pathway modulating agent, said method comprising the steps of:

(a) providing ~~an~~ a first assay system capable of detecting RAN Binding Protein 2 (RANBP2) expression ~~or activity~~ comprising ~~a purified RANBP2 nucleic acid~~ any of SEQ ID NOs: 1-6;

(b) contacting the first assay system with a test agent; ~~and~~

(c) determining the expression ~~or activity~~ of RANBP2 in the first assay system, wherein a change in RANBP2 expression ~~or activity~~ between the presence or absence of the test agent identifies the test agent as a candidate PTEN/IGF pathway modulating agent;

(d) providing a second assay system capable of detecting a change in the PTEN/IGF pathway comprising cultured cells expressing RANBP2,

(e) contacting the second assay system with the test agent of (b); and

(f) determining a change in the PTEN/IGF pathway in the second assay system, wherein a change in the PTEN/IGF pathway between the presence or absence of the test agent confirms the test agent as a candidate PTEN/IGF pathway modulating agent.

2. (Currently amended) The method of claim 1, wherein the first assay system comprises cultured cells that express the RANBP2 polypeptide.

3. (Previously presented) The method of claim 2, wherein the cultured cells additionally have defective PTEN/IGF function.

4. (Withdrawn) The method of claim 1 wherein the assay system includes a screening assay comprising a RANBP2 polypeptide, and the candidate test agent is a small molecule modulator.

5. (Withdrawn) The method of claim 4 wherein the assay is a binding assay.

6. (Currently amended) The method of claim 1, wherein the second assay system is selected from the group consisting of an apoptosis assay system, a cell proliferation assay system, an angiogenesis assay system, and a hypoxic induction assay system.

7. (Withdrawn) The method of claim 1 wherein the assay system includes a binding assay comprising a RANBP2 polypeptide and the candidate test agent is an antibody.

8. (Currently amended) The method of claim 1, wherein the ~~assay system includes an expression assay comprising a RANBP2 nucleic acid and the~~ candidate test agent is a nucleic acid modulator.

9. (Previously presented) The method of claim 8, wherein the nucleic acid modulator is an antisense oligomer.

10. (Currently amended) The method of claim 8, wherein the nucleic acid modulator is a ~~phosphothioate~~ phosphorodiamidate morpholino oligomer (PMO).

11. (Canceled)

12. (Canceled)

13. (Withdrawn) A method for modulating a p21 pathway of a cell comprising contacting a cell defective in p21 function with a candidate modulator that specifically binds to a ROR polypeptide, whereby p21 function is restored.

14. (Withdrawn) The method of claim 13 wherein the candidate modulator is administered to a vertebrate animal predetermined to have a disease or disorder resulting from a defect in p21 function.

15. (Withdrawn) The method of claim 13 wherein the candidate modulator is selected from the group consisting of an antibody and a small molecule.

16. (Canceled)

17. (Canceled)

18. (Withdrawn) The method of claim 16 wherein the secondary assay system comprises a non-human animal.

19. (Withdrawn) The method of Claim 18 wherein the non-human animal mis-expresses a PTEN/IGF pathway gene.

20. (Withdrawn) A method of modulating PTEN/IGF pathway in a mammalian cell comprising contacting the cell with an agent that specifically binds a RANBP2 polypeptide or nucleic acid.

21. (Withdrawn) The method of claim 20 wherein the agent is administered to a mammalian animal predetermined to have a pathology associated with the PTEN/IGF pathway.

22. (Withdrawn) The method of claim 20 wherein the agent is a small molecule modulator, a nucleic acid modulator, or an antibody.

23. (Withdrawn) A method for diagnosing a disease in a patient comprising:

(a) obtaining a biological sample from the patient;

(a) contacting the sample with a probe for RANBP2 expression;

(b) comparing results from step (b) with a control;

(c) determining whether step (c) indicates a likelihood of disease.

24. (Withdrawn) The method of claim 23 wherein said disease is cancer.

25. (Withdrawn) The method according to claim 24, wherein said cancer is a pancreatic cancer.